PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OMB 0651-0031

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

NFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 3

Complete if Known			
Application Number	09/753,256		
Filing Date	December 28, 2000/		
First Named Inventor	Valery M. Dubin		
Art Unit	2813		
Examiner Name	Nguyen, Tuan M.		
Attorney Docket Number	42390P1025A		

OTHER ART - NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
N		Brusic, "Copper Corrosion With and Without Inhibitors," J. Electrochem. Soc., Vol. 138, No. 8, pp. 2253-2258 (August 1991).					
N		Cho, et al., "Copper Interconnection with Tungsten Cladding for ULSI," 1991 Symposium on VLSI Technology, pp. 39-40 (May 1991).					
TN		Cho, et al., "Electroless Cu for VLSI," MRS Bulletin, pp. 31-38 (June 1993).					
TN	-	Dubin, et al., "Selective Electroless Ni Deposition on a TiW Underlayer for Integrated Circuit Fabrication," Thin Solid Films, pp. 87-93 (1993).					
TN		Dubin, et al., "Selective and Blanket Electroless Cu Plating Initiated by Contact Displacement for Deep Submicron Via Contact Filling," VMIC Conference, pp. 315-321 (June 1995).					
77		Gardner, et al., "Encapsulated Copper Interconnection Devices Using Sidewall Barriers," VMIC Conference, pp. 99-108 (June 1991).					
TN		Georgiou, et al., "Thick Selective Electroless-Plated Cobalt-Nickel Alloy Contacts to CoSi ₂ ," J. Electrochem. Soc., Vol. 138, No. 7, pp. 2061-2069 (July 1991).					
TN		Jagannathan, et al., "Electroless Plating of Copper at a Low pH Level," J. Res. Develop., Vol. 37, No. 2, pp. 117-123 (March 1993).					
N		Kiang, et al., "Pd/Si Plasma Immersion Ion Implantation for Selective Electroless Copper Plating on SiO2," Appl. Phys. Lett., Vol. 60, No. 22, pp. 2767-2769.					
TN		Luther, et al., "Planar Copper-Polyimide Back End of the Line Interconnections for ULSI Devices," VMIC Conference, pp. 15-21 (June 1993).					
N		Mak, "Electroless Copper Deposition on Metals and Metal Silicides," MRS Bulletin, pp. 55-62 (August 1994).					
TN		Murarka, et al., "Inlaid Copper Multilevel Interconnections Using Planarization by Chemical-Mechanical Polishing," MRS Bulletin, pp. 46-51 (June 1993).					
TN		Paunovic, et al., "Electrochemically Deposited Diffusion Barriers," J. Electrochem. Soc., Vol. 141, No. 7, pp. 1843-1850 (July 1994).					
TW		Shacham-Diamand, "100 nm Wide Copper Lines Made by Selective Electroless Deposition," J. Micromech. Microeng., pp. 66-72 (1991).					

Examiner Signature	T. NEWLEN	Date Considered	5/30/03	
,	127.01. 00		7	

^{*}Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Applicant's unique citation designation number. ²Applicant is toplace a check mark here if English language Translation is attached.

OT P E 7000 7

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Complete if Known tute for form 1449A/PTO Application Number 09/753,256 INFORMATION DISCLOSURE December 28, 2000 Filing Date Valery M. Dubin First Named Inventor STATEMENT BY APPLICANT 2813 Art Unit (use as many sheets as necessary) Nguyen, Tuan H. **Examiner Name** 3 3 of Attorney Docket Number Sheet 42390P10254

		OTHER ART - NON PATENT LITERATURE DOCUMENTS	
kaminer nitials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the jem (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
N		Shacham-Diamand, et al., "0.35 μm Cu-Filled Via Holes by Blanket Deposited Electroless Copper on Sputtered Seed Layer," VMIC Conference, pp. 334-336 (June 1995).	
TN		Sviridov, Electroless Metal Deposition from Aqueous Solution," Minsk Bielorussion State University, pp. 60-85 (1986).	
TN		Ting, et al., "Selective Electroless Metal Deposition for Integrated Circuit Fabrication," J. Electrochem. Soc., Vol. 136, No. 2, pp. 456-465 (February 1989).2/14/2003	
TN		Ueno, et al., "A Half-Micron Pitch Cu Interconnection Technology," 1995 Symposium on VLSI Technology, pp. 27-28 (1995).	
TN TN TN TN		Wang, "Barriers Against Copper Diffusion into Silicon and Drift Through Silicon Dioxide," MRS Bulletin, pp. 30-40 (August 1994).	
N		Wong, et al., "Electroless Copper Deposition for Multilevel Metallization," Mat. Res. Soc. Symp. Proc., Vol. 203, pp. 347-356 (1991).	
TN		Hymes, et al., "Passivation of Copper by Silicide Formation in Dilute Silane," Conference Proceedings ULSI-VII, Materials Research Society; pp. 425-431 (1992).	
			:

Examiner Signature T. NGWEN Date Considered 5/80/03

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Applicant's unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01)
use through 10/31/2002. OMB 0651-0031
U.S. DEPARTMENT OF COMMERCE
ass it displays a valid OMB control number.

Sybstitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet | 1 | of | 3

Complete if Known					
Application Number	09/753,256				
Filing Date	December 28, 2000				
First Named Inventor	Valery M. Dubin				
Art Unit	2813				
Examiner Name	Nguyen, Tuan H.				
Attorney Docket Number	42390P10254				

	U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Document Number Number - Kind Code ² (if known)	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
TN		US-4,574,094	03-04-1986	DeLuca et al.			
JW,		US-4,574,095	03-04-1986	Baum et al.	_ /		
TN.		US-4,789,648	12-06-1988	Chow et al.	- 1		
TN		US-4,894,260	01-16-1990	Kumasaka et al.	- /		
TN		US-4,985,750	01-15-1991	Hoshino	- /		
TN.		US-5,151,168	09-29-1992	Gilton et al.	— /		
TN		US-5,240,497	08-31-1993	Shacham et al.	/		
TN.		US-5,612,254	03-18-1997	Mu et al.			
TN		US-5,739,579	04-14-1998	Chiang et al.			
TN,		US-5,891,513	04-06-1999	Dubin et al.	—		
TN		US-6,169,024	01-02-2001	Hussein			
M,		US-6,258,707	07-10-2001	Uzoh			
JN	ř	US-6,316,359	11-13-2001	Simpson			
W		US-6,153,935	11-28-2000	Edelstein et al.			
Ľ		US-	/				
		US-					
		US-					
		US-					
		US-					
		US-					

	FOREIGN PATENT DOCUMENTS							
Examiner	Cite No.1	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines,			
Initials*		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)			Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T⁵		
77		JP-62[1987]-270778	11-25-1987	Ichiyoshi	-			
		,			<u> </u>			
		. /						
		7						
				-				
			*			_		
Examin Signat		T. NAUYEN		Date Considered 5/30/0	3			

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not confidered. Include copy of this form with next communication.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Class Suchas